

ARCADIS

SP

Installation and Startup

Option

Int. I.I. laser light localizer

These instructions apply to the upgrade of the integrated laser light BV23 for the ARCADIS Varic and ARCADIS Orbic products.

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Safety information

General safety information



Danger of injuries, death or material damage.

Non-compliance can lead to death, injury or material damage.

Please note:

- ⇒ The product-specific safety notes in these instructions,
 - ⇒ The general safety information in TD00-000.860.01... and
 - ⇒ The safety information in accordance with ARTD Part 2.
-

General electrical safety information



Electrical safety!

Non-compliance can lead to severe injury or even death, as well as material damage.

- ⇒ Parts under electrical voltage are accessible when the covers are open. To avoid danger, disconnect the system from the power supply before opening the covers. Disconnect the power plug.
 - ⇒ If an uninterruptible power supply (UPS) is installed in the system, the voltage output of the UPS must also be deenergized or the voltage output plug must be disconnected.
 - ⇒ If work steps must be performed using electrical power, the general safety information according to TD00-000.860.01 must be observed.
-

Laser light localizer



Laser emissions!

This product contains lasers of the class 1M. (USA: Laser class 1M)

Disregarding safety precautions can lead to bodily injury, especially to the retina of the eye, resulting in irreversible damage to vision.

- ⇒ Observe the safety information in ARTD-002.731.03...
When working with the laser light localizer, do not look directly into the laser beam.



Laser emissions!

There is no direct hazard to the eye (blinking reflex). Nevertheless, do not look directly into the laser beam.

Information on the protective conductor resistance test

Observe the instructions in the "Safety Rules for Installation and Repair" (ARTD-002.731.17 ...).

The protective conductor resistance must be measured after every intervention in the system.

However, documentation of the measured values is required only during periodic safety checks.

If parts/components that can significantly influence the protective conductor resistance (e.g., replacement of the power cable, replacement of the power-up module, replacement of multi-pole connection cables which also create the protective conductor connection between system parts (e.g., monitor cable or C-arm cable)) are replaced or if protective conductor connections have been repaired, the protective conductor resistance must be measured. The values must be documented and evaluated in the protective conductor resistance protocol.

NOTE

For evaluation purposes, the first measured value and the values documented during maintenance or safety checks must be compared to the measured values. A sudden or unexpected increase in the measured values may indicate a defect in the protective conductor connections - even if the limit value of 0.2 ohms is not exceeded. (Protective conductor or contacts).

The measurement must be performed according to DIN VDE 0751, Part 1 (see ARTD Part 2). The protective conductor resistance for all touchable conductive parts must be measured during the normal operating state of the system.

Make sure that control cables or data cables between the components of the system are not mistaken for protective conductor connections.

During the measurement, the power cable and additional connection cables which also create the protective conductor connection between system parts (e.g. monitor cable between the basic unit and monitor trolley) must be moved section by section to detect cable breaks.

The protective conductor resistance must not exceed 0.2 Ohms.

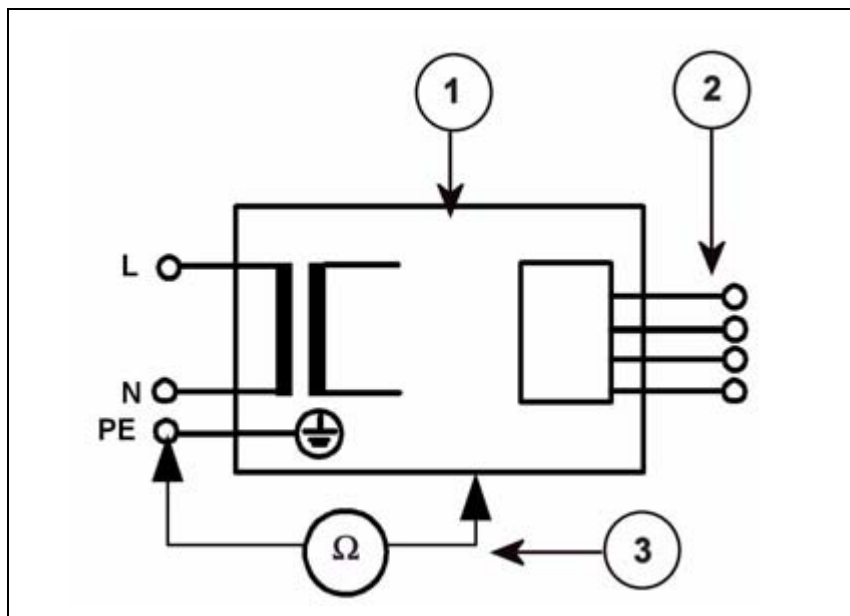


Fig. 1: Measuring circuit for measuring the protective conductor resistance for units that are disconnected from power, in compliance with DIN VDE 0751-1/2001-10, Fig. C2.

- Pos. 1 = System
- Pos. 2 = Application part type B (if available)
- Pos. 3 = Measurement setup (integrated into measuring device)

Information on navigation systems installed as options

This ARCADIS system can be used in combination with navigation systems supplied by various navigation system manufacturers.

The use of the navigation system lies within the responsibility of the customer.

The installation of the integrated I.I. laser light localizer influences the accuracy of the navigation system.



The installation of the integrated I.I. laser light localizer in the ARCADIS system will lead to inaccuracy in a navigation system installed optionally.

Failure to take the necessary steps to address this situation can lead to severe injuries in the patient.

- ⇒ **After an integrated I.I. laser light localizer is installed in the ARCADIS system, the accuracy of optionally installed navigation systems is no longer guaranteed. The customer must be notified verbally and/or in writing that the accuracy of the installed navigation system is no longer guaranteed once an integrated I.I. laser light localizer has been installed, and that the accuracy of the navigation system must be checked and certified before it is used again.**
-

Requirements

Validity of these instructions

These instructions apply to the upgrade of the Integrated laser light BV23 (Mat. no. 8079563) for the ARCADIS Varic and ARCADIS Orbic products.

Required tools, measurement devices and auxiliary materials

- Standard toolkit
- 1 set of Allen wrenches (metric)
- Protective conductor meter, e.g. Safety Tester Unimet 1000, Mat. no. 05138727
- Electronic soldering tool with solder.
- Disconnecting tool for AMP plug-in connections
- Disconnecting tool for MOD4 plug-in contacts (e.g. tweezer point)

Required material

- Integrated laser light BV23, Mat. no. 08079563



Fig. 2: Integrated laser light BV23 8079563

- Pos. 1 Integrated laser light BV23
Pos. 2 Accessory pack
Pos. 3 "Laser Aperture" labels
Pos. 4 Laser warning sign

As necessary the upgrade kit Mat. no. 08080520 may be required. Refer to the following instructions.

NOTE

There are two I.I. models which differ in their grid, grid mount and set-up for the integrated laser light BV23.

For grid 04933727, the I.I. upgrade kit Mat. no. 08080520 is required for the installation of the integrated laser light BV23.

The I.I. upgrade kit includes a grid with a smaller diameter, a clamping ring for mounting the grid and additional wiring adapters.



Fig. 3: I.I. upgrade kit 8080520

- Pos. 1 Grid 8404050
- Pos. 2 Clamping ring
- Pos. 3 Adapter (at the grid)
- Pos. 4 Adapter (connector D3/D30.X3A)
- Pos. 5 Adapter (coupler D3/D30.X3A)

NOTE

This chapter describes the installation of the integrated laser light BV23 on an ARCADIS Orbic system.

This chapter may be skipped if it is an ARCADIS Varic system. Continue with the chapter "ARCADIS Varic Installation".

Installation on the image intensifier side



Fig. 4: I.I. without grid and grid holder

Move the I.I. downward (angulation) for ease of installation.

Removing the grid holder / navigation ring and grid.

- Remove the raster holder / navigation ring from the I.I. together with the grid.

NOTE

Older models of the I.I. use the grid 04933727 which must be removed from the grid holder / navigation ring.

- If this is an older model of the I.I. with grid 04933727, carefully loosen and remove it from the back side of the grid holder / navigation ring using a sharp knife.
- Remove any remnants of the silicone adhesive from the grid holder / navigation ring.

Removing the blanking covers on grid 08404050

NOTE

Grid 08404050 has two perforations for the integrated laser light localizer; in the event of a new delivery, these are covered by blanking covers. To avoid damaging the grid while removing the blanking covers, they must be carefully extracted without pressing on the grid or deforming it. In addition, when removing the blanking covers (1/Fig. 5 / p. 13), set the grid flat on a level surface.

As an aid, the integrated laser light localizer can be set on a level support, as shown in (Fig. 5 / p. 13). Then place each blanking cover (1/Fig. 5 / p. 13) above the indentation (2/Fig. 5 / p. 13) of the integrated laser light localizer and press the blanking cover downward.

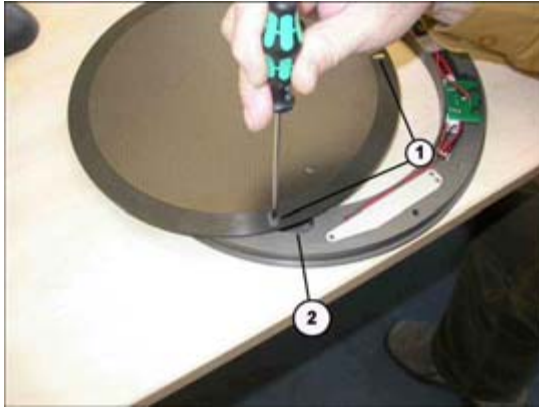


Fig. 5: Removing the blanking plates

Pos. 1 Laser apertures

Pos. 2 Indentation on the integrated laser light localizer

- Rotate the integrated laser light localizer and set it on a flat surface.
- Place the grid 08404050 on the laser light localizer so that each blanking plate (1/Fig. 5 / p. 13) lies above the indentation (2/Fig. 5 / p. 13).
- Press out the blanking plates (1/Fig. 5 / p. 13) from the grid with a screwdriver or similar tool. The blanking plates are no longer needed.

Wiring the adapter (at the grid) to the image intensifier

NOTE

The newer model of the I.I. already has the 2-pin connector as shown in (Fig. 4 / p. 12). Continue with the chapter "Attaching the integrated laser light BV23".

In the case of the older I.I. model, the adapter in the accessory pack (refer to (3/Fig. 3 / p. 10)) must be soldered to the two leads.

- Pull both visible leads from the cut-out.
- Slide a section of shrink tube over the leads.
- Strip both lead ends.
- Likewise, strip the ends of the adapter leads (at the grid), see (3/Fig. 3 / p. 10).
- Solder the red lead coming from the I.I. to the red adapter lead.
- Solder the blue lead coming from the I.I. to the black adapter lead.
- Insulate the solder connections using the shrink tubes.

Attaching the integrated laser light BV23



Fig. 6: Connector for integrated laser light BV23

- Plug the 2-pin connector into the integrated laser light BV23.
- Store the plugs in the I.I. cut-out.

Installing the integrated laser light BV23 on the image intensifier



Fig. 7: Integrated laser light BV23, protective covers

Pos. 1 Protective covers over laser apertures

- Set the integrated laser light BV23 on the I.I.
- Remove the adhesive strip and washer covering the laser apertures from the integrated laser light BV23. Refer to [\(1/ Fig. 7 / p. 14\)](#).

If navigation is present



Fig. 8: Laser light BV23 installation with navigation

- Pos. 1 Mounting holes
Pos. 2 Navigation ring locating pins

- Place grid 08404050 into the navigation ring.
- Set the integrated laser light BV 23 between the I.I. and the navigation ring.
 - ⇒ The mounting holes of the navigation ring and laser light localizer are positioned congruently. Refer to (1/ Fig. 8 / p. 15).
 - ⇒ The laser apertures and the openings in the grid are likewise congruent.
 - ⇒ Additionally note that the navigation ring is mounted in the position as illustrated. The 3 locating pins on the navigation ring (2/ Fig. 8 / p. 15) are in the position as illustrated.
- Attach the navigation ring, the integrated laser light BV23 and the grid in this position to the I.I. using the accompanying Allen screws. Refer to (Fig. 8 / p. 15).

Without navigation



Fig. 9: Laser light BV23 installation without navigation

- Pos. 1 Protective covers over laser apertures
Pos. 2 Threaded holes for attaching the clamping ring
Pos. 3 Mounting holes



Fig. 10: Integrated laser light BV23 installation without navigation

- Attach the integrated laser light BV23 to the I.I. using the accompanying countersunk screws. Refer to (3/ Fig. 9 / p. 15).
- Place grid 08404050 into the clamping ring..
- Lay the clamping ring with the grid on the integrated laser light BV 23.
 - ⇒ The holes in the clamping ring are congruent with the threaded holes in the integrated laser light BV23. Refer to (2/ Fig. 9 / p. 15) and (Fig. 10 / p. 16).
 - ⇒ The laser apertures and the openings in the grid are likewise congruent.
- Attach the clamping ring and grid in this position to the integrated laser light BV23 using the accompanying Allen screws. Refer to (Fig. 10 / p. 16).

Wiring in the image intensifier (camera-side)

NOTE

This is necessary only for image intensifiers not having a factory-supplied connector for attaching to the integrated laser light BV23 (Fig. 4 / p. 12). If the plug is been provided by the factory, then the I.I. wiring is also present. In this case, the I.I. does not need to be moved to the service position. Skip this section. Continue with the section "Wiring in the base unit."



Fig. 11: I.I. wiring at the camera

Pos. 1 Yellow wire bundle

- Place the I.I. into the service position. Refer to the system service instructions "Replacing parts."
- Strip the ends of the red and blue leads coming from the integrated laser light BV23.
- Look for the yellow wire bundle. Refer to [\(1/ Fig. 11 / p. 17\)](#).
 - ⇒ Use the yellow and green reserve leads in the yellow wire bundle.
- Strip the ends of the green and yellow leads.
- Slide a section of shrink tubing over each of the yellow and green leads.
- Solder the blue lead (from the laser light BV23) to the yellow lead (coming from the yellow wire bundle).
- Solder the red lead (from the laser light BV23) to the green lead (coming from the yellow wire bundle).
- Insulate the solder connections using the shrink tubes.
- Use cable ties to connect these leads to the existing wires.

Installation on the base unit side

Wiring in the base unit

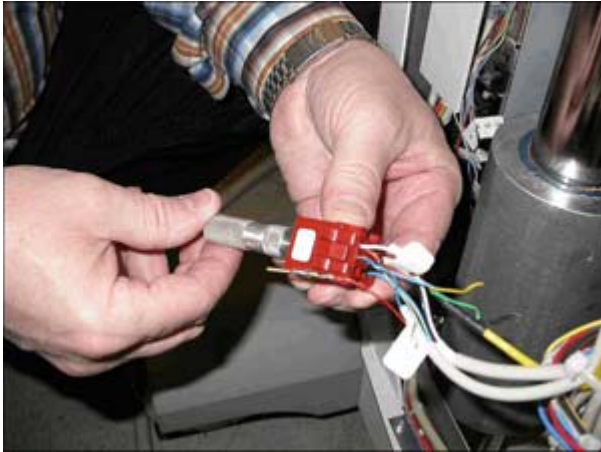


Fig. 12: Connector D30.X3, removal of leads X3.8 and X3.9

- Unplug connector X3 on board D30.
- Push out the two DX30.X3.8 and D30.X3.9 leads from connector D30.X3. Refer to [\(Fig. 12 / p. 18\)](#).

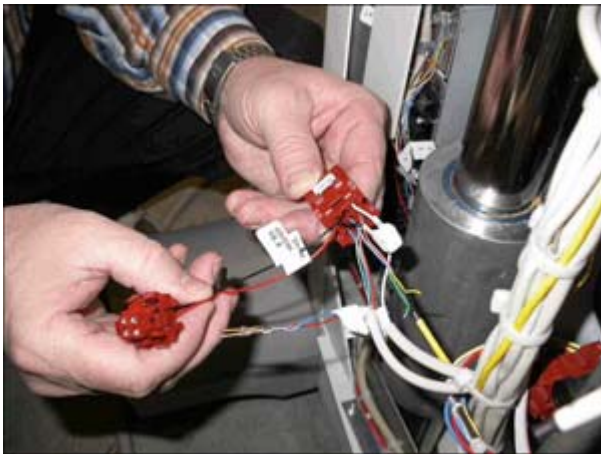


Fig. 13: Adapter (coupler D3/D30.X3A)

- Connect the supplied adapter with female coupler D3/D30.X3A to the free lead ends marked D3/30.X3.8 and D3/30.X3.9.
 - ⇒ Insert the two free leads identified as D3/D30.X3.8 and D3/D30.X3.9 into connectors D30.X3.8 und D30.X3.9.



Fig. 14: Insert leads in adapter (connector D3/D30.X3A)

- Connect the supplied adapter to the male connectors X2A and X3A.
 - ⇒ Then insert the two previously removed leads into connector X3a. Insert lead D30.X3.8 into adapter connector X3A.1, lead D30.X3.9 into adapter connector X3A.3.
- Re-insert the previously removed connector D30.X3 into board D30.X3. Refer to [\(Fig. 14 / p. 19\)](#).

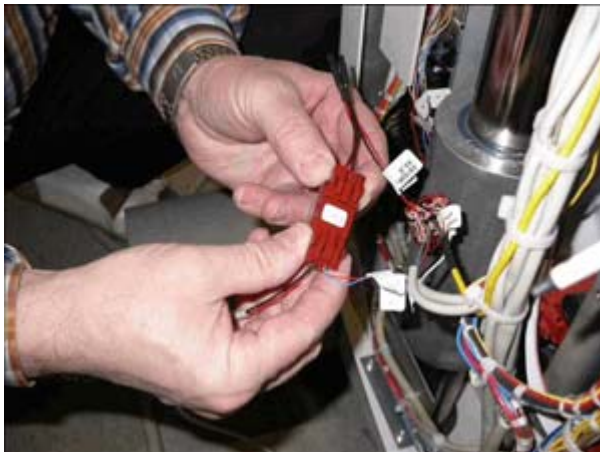


Fig. 15: Connect adapter connector and coupler X3A

- Connect coupler X3A to connector X3A of both adapters.

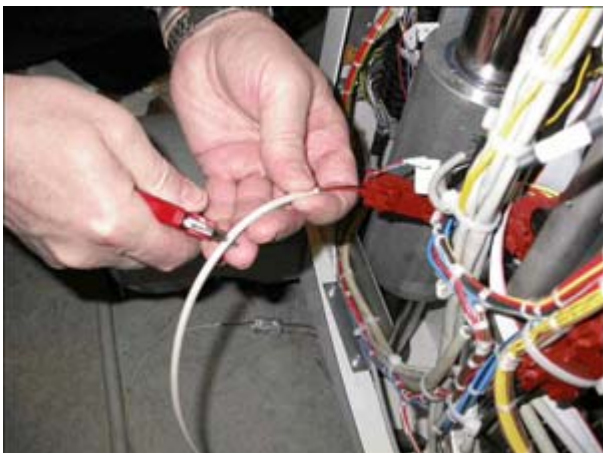


Fig. 16: Shortening adapter/connector D3/D30.X3A leads

- Shorten both leads to connector X2a coming from the adapter with connectors X2A and X3A to about 15 cm. Refer to (Fig. 16 / p. 20).

NOTE

Connector X2A is not used in the ARCADIA Orbic system.

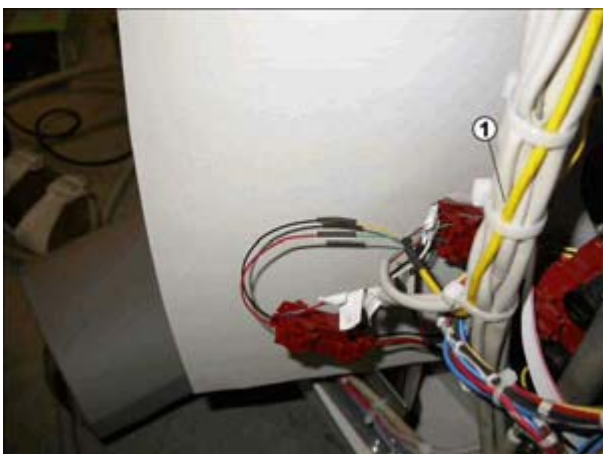


Fig. 17: Wiring the reserve leads from the yellow wire bundle

Pos. 1 Yellow wire bundle

- Look for the yellow wire bundle. Refer to (Fig. 17 / p. 20).
- Use the yellow and green reserve leads in the yellow wire bundle.
- Strip the ends of the green and yellow reserve leads.
- Slide a section of shrink tube over the leads.
- Solder the shortened red lead of the adapter to the green reserve lead.
- Solder the shortened black lead of the adapter to the yellow reserve lead and insulate using shrink tube. Refer to (Fig. 17 / p. 20).



Fig. 18: Attaching the plug connection X3A

Pos. 1 Adapter, connector and coupler X3A

- Attach the coupler and connector X3A to the cable harness using cable ties, refer to [\(1/ Fig. 18 / p. 21\)](#).
- If this is an ARCADIS Orbic system, skip the following chapter "ARCADIS Varic Installation." Continue with the chapter "Attaching labels".

NOTE

This chapter describes the installation of the integrated laser light BV23 on an ARCADIS Varic system.

If this is an ARCADIS Orbic system, install the integrated laser light BV23 according to the chapter "ARCADIS Orbic Installation." Skip this chapter. Continue with the chapter "Attaching labels".

Installation on the image intensifier side



Fig. 19: I.I. without grid and grid holder

NOTE

The pictures show installation on the ARCADIS Orbic system. Installation on the I.I. differs only slightly. The descriptions correspond to the ARCADIS Varic system.

Move the I.I. downward (angulation) for ease of installation.

Removing the grid holder / navigation ring and grid.

- Remove the grid holder / navigation ring together with the grid from the I.I.

NOTE

Older models of the I.I. use grid 04933727 which must be removed from the grid holder / navigation ring.

- If this is an older model of the I.I. with grid 04933727, carefully loosen and remove it from the back side of the grid holder / navigation ring using a sharp knife.
- Remove any remnants of the silicone adhesive from the grid holder / navigation ring.

Removing the blanking plates on the new grid

NOTE

Grid 08404050 has 2 perforations for the integrated laser light localizer; in the event of a new delivery, these are covered by blanking covers. To avoid damaging the grid while removing the blanking covers, they must be carefully extracted without pressing on the grid or deforming it. In addition, when removing the blanking covers (1/Fig. 20 / p. 24), set the grid flat on a level surface.

As an aid, the integrated laser light localizer can be set on a level support, as shown in (Fig. 20 / p. 24). Then place each blanking cover (1/Fig. 20 / p. 24) above the indentation (2/Fig. 20 / p. 24) of the integrated laser light localizer and press the blanking cover downward.

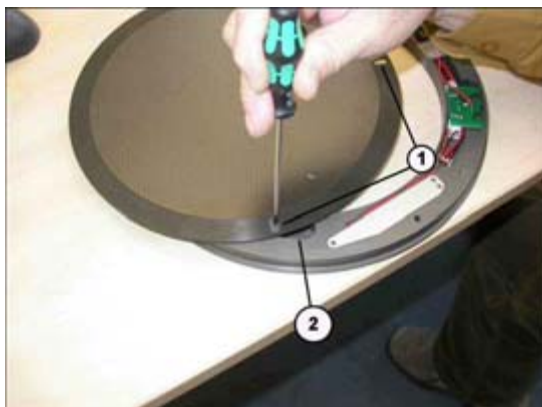


Fig. 20: Removing the blanking plates

Pos. 1 Laser apertures

Pos. 2 Indentation on the integrated laser light localizer

- Rotate the integrated laser light localizer and set it on a flat surface.
- Place grid 08404050 on the laser light localizer so that each blanking plate lies above the indentation (2/Fig. 20 / p. 24).
- Press out the blanking plates (1/Fig. 20 / p. 24) from the grid with a screwdriver or similar tool. The blanking plates are no longer needed.

Wiring the adapter (at the grid) to the image intensifier

- If present, desolder the blue and red leads from the cassette switch and remove the cassette switch and related mounting parts.
- Slide a section of shrink tube over each lead.
- Strip both lead ends.
- Likewise, strip the ends of the adapter leads (at the grid), see (3/Fig. 3 / p. 10).
- Solder the red lead coming from the I.I. to the red adapter lead.
- Solder the blue lead coming from the I.I. to the black adapter lead.

- Insulate the solder connections using the shrink tubes.

Attaching the integrated laser light BV23



Fig. 21: Connector for integrated laser light BV23

- Plug the 2-pin connector into the integrated laser light BV23.
- Store the plugs in the I.I. cut-out.

Installing the integrated laser light BV23 on the image intensifier



Fig. 22: Integrated laser light BV23, protective covers

Pos. 1 Protective covers over laser apertures

- Set the integrated laser light BV23 on the I.I.
- Remove the adhesive strip and washer covering the laser apertures from the integrated laser light BV23. Refer to [\(1/ Fig. 22 / p. 25\)](#).

If navigation is present



Fig. 23: Integrated laser light BV23 installation with navigation

Pos. 1 Mounting holes

Pos. 2 Navigation ring locating pins

- Place grid 08404050 into the navigation ring that was previously removed.
- Set the integrated laser light BV 23 between the I.I. and the navigation ring.
 - ⇒ The mounting holes of the navigation ring and laser light localizer are positioned congruently. Refer to (1/Fig. 23 / p. 26).
 - ⇒ The laser apertures and the openings in the grid are likewise congruent.
 - ⇒ Additionally note that the navigation ring is mounted in the position illustrated. The 3 locating pins on the navigation ring (2/Fig. 23 / p. 26) are in the position illustrated.
- Attach the navigation ring, the integrated laser light BV23 and the grid in this position to the I.I. using the accompanying Allen screws. Refer to (Fig. 23 / p. 26).

Without navigation



Fig. 24: Integrated laser light BV23 installation without navigation

- Pos. 1 Protective covers over laser apertures
- Pos. 2 Threaded holes for attaching the clamping ring
- Pos. 3 Mounting holes



Fig. 25: Integrated laser light BV23 installation without navigation

- Attach the integrated laser light BV23 to the I.I. using the accompanying countersunk screws. Refer to (3/Fig. 24 / p. 27).
- Place grid 08404050 into the clamping ring.
- Lay the clamping ring with the grid on the integrated laser light BV 23.
 - ⇒ The holes in the clamping ring are congruent with the threaded holes in the integrated laser light BV23. Refer to (2/Fig. 24 / p. 27) and (Fig. 25 / p. 27).
 - ⇒ The laser apertures and the openings in the grid are likewise congruent.
- Attach the clamping ring and grid in this position to the integrated laser light BV23 using the accompanying Allen screws. Refer to (Fig. 25 / p. 27).

Wiring in the image intensifier (camera-side)**NOTE**

Wiring in the I.I. (camera-side) was already provided at the factory for the ARCADIS Varic system. The I.I. does not have to be opened.

Installation on the base unit side

Wiring in the base unit



Fig. 26: Adapter (coupler and connector D3/D30.X3A), wiring

- Unplug connector X3 on board D3.
- Push out the two DX3.X3.8 and D3.X3.9 leads from connector D3.X3. Refer to [\(Fig. 26 / p. 29\)](#).
- Connect supplied adapter with female coupler D3/D30.X3A to the free lead ends marked D3/30.X3.8 and D3/30.X3.9.
 - ⇒ Insert the two free leads identified as D3/D30.X3.8 and D3/D30.X3.9 into connectors D3.X3.8 und D3.X3.9. Refer to [\(Fig. 26 / p. 29\)](#).
- Connect the supplied adapter to the male connectors X2A and X3A.
 - ⇒ Then insert the two previously removed leads into connector X3a. Insert lead D3.X3.8 into adapter connector X3A.1, lead D3.X3.9 into adapter connector X3A.3. Refer to [\(Fig. 26 / p. 29\)](#).
- Re-insert the previously removed connector D3.X3 into board D3.X3. Refer to [\(Fig. 26 / p. 29\)](#).
- Connect coupler X3A to connector X3A of both adapters.
- Place connector X2A of the adapter with connectors X2A and X3A in the vicinity of connector D1.X2 between board D3 and the vertical column of board D1. Make sure that the leads do not rub against the chain of the control mechanism. Refer to [\(Fig. 26 / p. 29\)](#) and [\(Fig. 27 / p. 30\)](#).

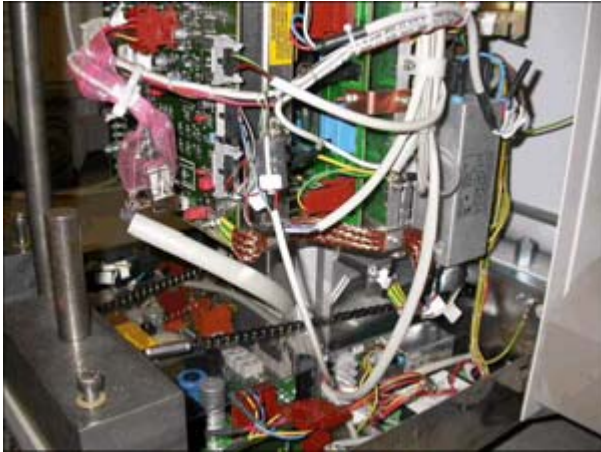


Fig. 27: Connectors D1.X2 and D1.X2A, wiring

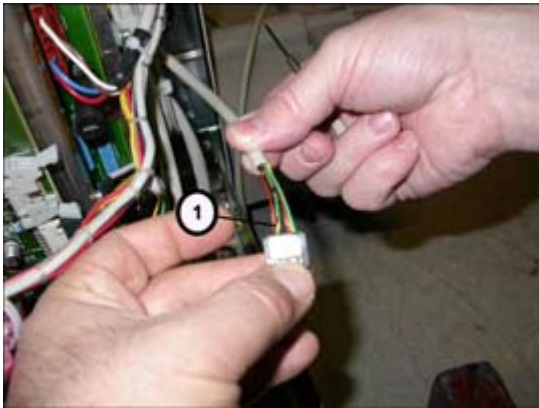


Fig. 28: Connector X2, removal of leads

Pos. 1 Leads X2.7 and X2.8

- Remove connector D1.X2 from board D1.
- Pull out yellow-black lead D1.X2.7 and green-black lead D1.X2.8 from connector D1.X2 (1/Fig. 28 / p. 30).
- Re-insert the previously removed connector D1.X2 into board D1.X2.

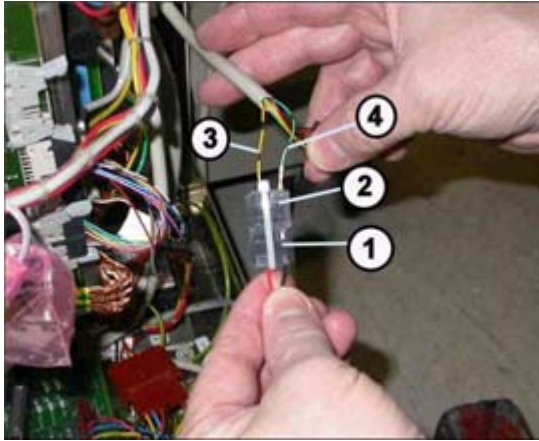


Fig. 29: Connector and coupler X2A

- Pos. 1 X2A connector
- Pos. 2 X2A coupler
- Pos. 3 X2A.w (lead y/b)
- Pos. 4 X2A.9 (lead g/b)

- Insert yellow-black lead D1.X2.7 into coupler X2A.4 ([3 und 2/Fig. 29 / p. 31](#)).
 ➞ The red lead of the adapter is connected to the yellow-black lead from connector X2.
- Insert lead D1.X2.8 into coupler X2A.9 ([4 und 2/Fig. 29 / p. 31](#)).
 ➞ The black lead of the adapter is connected to the green-black lead from connector X2.
- Connect connector X2A and both leads for adapter X3A to the cable harness using cable ties. Make sure that the leads do not rub against the chain of the control mechanism. Refer to ([Fig. 26 / p. 29](#)) and ([Fig. 27 / p. 30](#)).

ARCADIS Varic labels

“Laser Aperture” labels



Fig. 30: Integrated laser light BV23, label position

- Remove the "Laser Aperture" labels from the accessory pack.
- Attach both "Laser Aperture" labels on the I.I. housing near the laser aperture. Refer to [\(Fig. 30 / p. 32\)](#).

Laser warning sign

- Remove the laser warning sign from the accessory pack.
- Attach the laser warning sign on the I.I. centrally between the "Laser Aperture" labels. Refer to [\(Fig. 30 / p. 32\)](#).

Label



Fig. 31: ARCADIS Varic label

- Remove the "Second set of laser labels" and the laser light localizer label from the accessory pack.
- On the inside of the C-arm place the label "Second set of laser labels" and beneath it the laser label. refer to ([Fig. 31 / p. 32](#)).

ARCADIS Orbic labels

“Laser Aperture” labels



Fig. 32: Integrated laser light BV23, label position

- Remove the "Laser Aperture" labels from the accessory pack.
- Attach both "Laser Aperture" labels on the I.I. housing near the laser aperture. Refer to [\(Fig. 32 / p. 34\)](#).

Laser warning sign

- Remove the laser warning sign from the accessory pack.
- Attach the laser warning sign on the I.I. centrally between the "Laser Aperture" labels. Refer to [\(Fig. 32 / p. 34\)](#).

Label



Fig. 33: ARCADIS Orbic label

- Remove the "Second set of laser labels" and the laser light localizer label from the accessory pack.

- On the inside of the C-arm place the label "Second set of laser labels" and beneath it the laser label. Refer to [\(Fig. 33 / p. 34\)](#).

Imaging system configuration

- Switch on the system and wait for the system to boot.
- Call up local service on the Syngo imaging system.
- Enter the license key for local service.
- Select "Main System," then "Next".
- Under "Configuration" select "Options".
- Select "yes" under "Laser Existing".
- Click "Save."
- Close local service.
- To transfer the setting, shut down the computer then boot up again.
- Call up local service on the Syngo imaging system.

Backup

- After configuration start local service again and enter the license key.
- Perform a backup of the changed parameters. Open the log book cabinet and remove the backup CD from the log book or system folder, and use it for data backup.
- After performing the backup, replace the CD in the log book or system folder.
- Close the log book cabinet.

Requirements

- The integrated laser light BV23 has been installed and the Syngo PC has been configured.

Functional check

CAUTION**Laser emissions!**

This product contains lasers of the class 1M.

Disregarding safety precautions can lead to bodily injury, especially to the retina of the eye, resulting in irreversible damage to vision.

- ⇒ Observe the safety information in ARTD-002.731.03...
When working with the laser light localizer, do not view the laser beams directly with optical instruments.

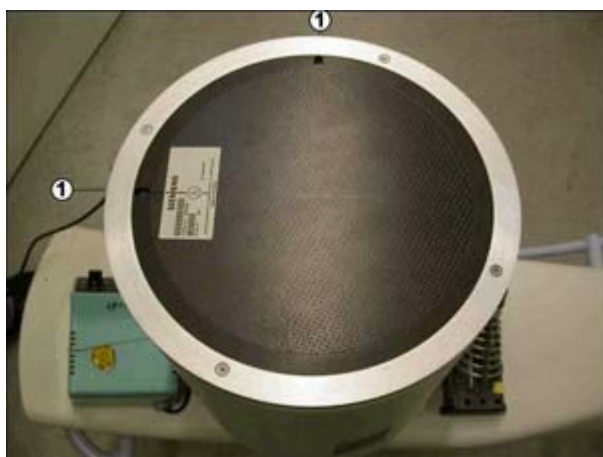


Fig. 34: Integrated laser light BV23, position of adjusting screws

Pos. 1 Position of laser diode adjusting screws

- Switch on the system and wait for the system to boot.
- The integrated laser light BV23 can be switched on and off using the "Laser" button on the operating console of the base unit.
- The laser quadrants must be adjustable centrally on the red focus point of the tube cover. The adjusting screws (Allen screws 2.5 mm) are accessible laterally near the laser aperture. Refer to (1/ Fig. 34 / p. 39).
- Close the log book cabinet.

NOTE

If both the integrated laser light BV23 and the laser light localizer are installed on the system, both laser light localizers may be operated in parallel using the "Laser" button on the operating console of the base unit.

Closing the covers

- Replace the I.I. on the C-arm of the ARCADIS Orbic. Pay attention to protective conductor connections.
- Close all covers again. Pay attention to protective conductor connections.

Protective conductor test

- After all covers have been closed, perform the protective conductor test according to ARTD-002.731.17...
 - ⇒ The protective conductor resistance must not exceed 0.2 Ohm.

Information about optionally installed navigation systems

⚠ WARNING

After an integrated I.I. laser light localizer is installed in the ARCADIS system, the accuracy of optionally installed navigation systems is no longer guaranteed.

See the chapter "Requirements," section "Safety information and protective measures."

- ⇒ If an optionally installed navigation system is present, the customer must be notified that the accuracy of the installed navigation system is no longer guaranteed, and that the navigation system must be checked and certified before it is used again.

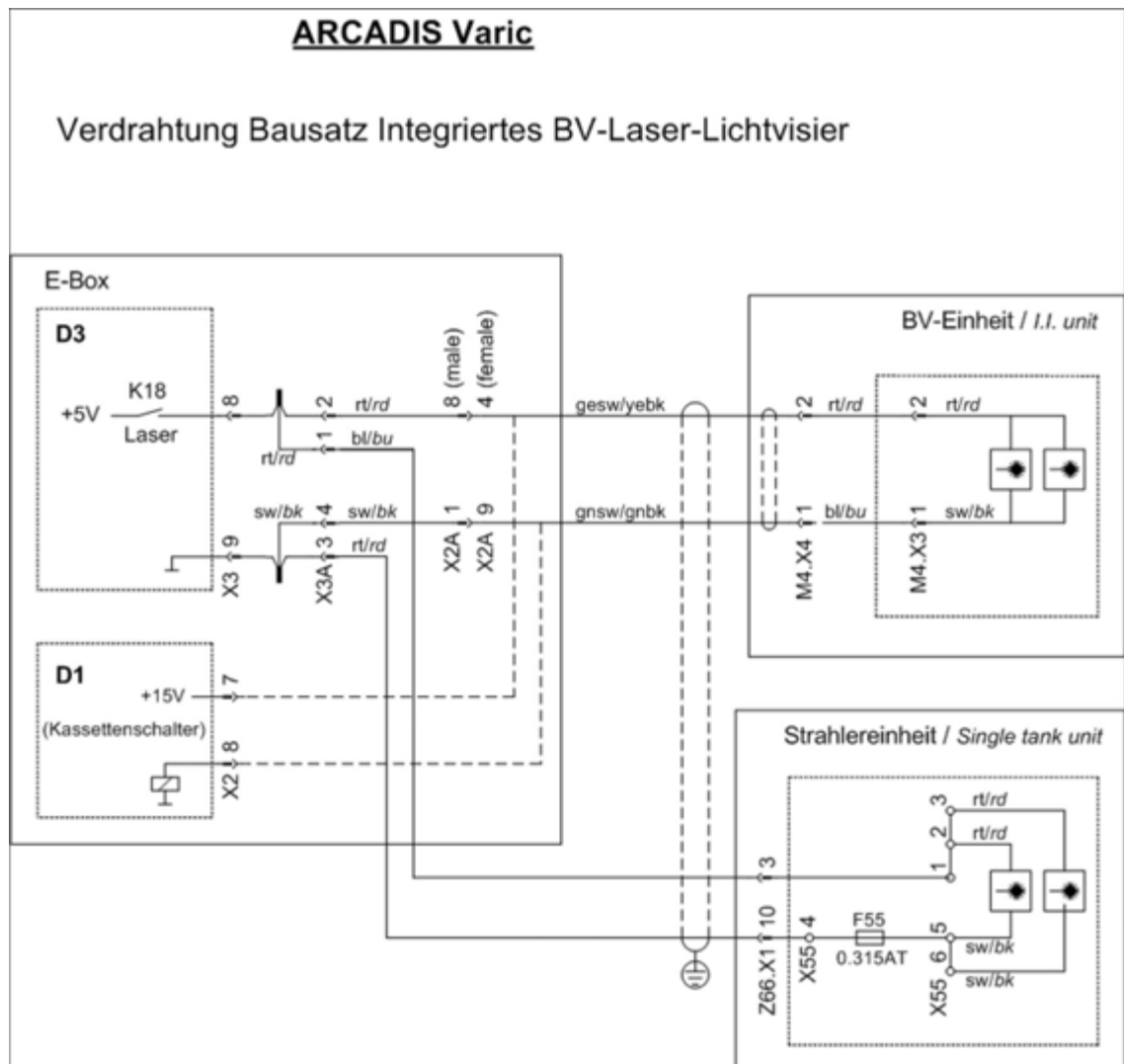


Fig. 35: ARCADIS Varic, integrated laser light localizer circuit diagram

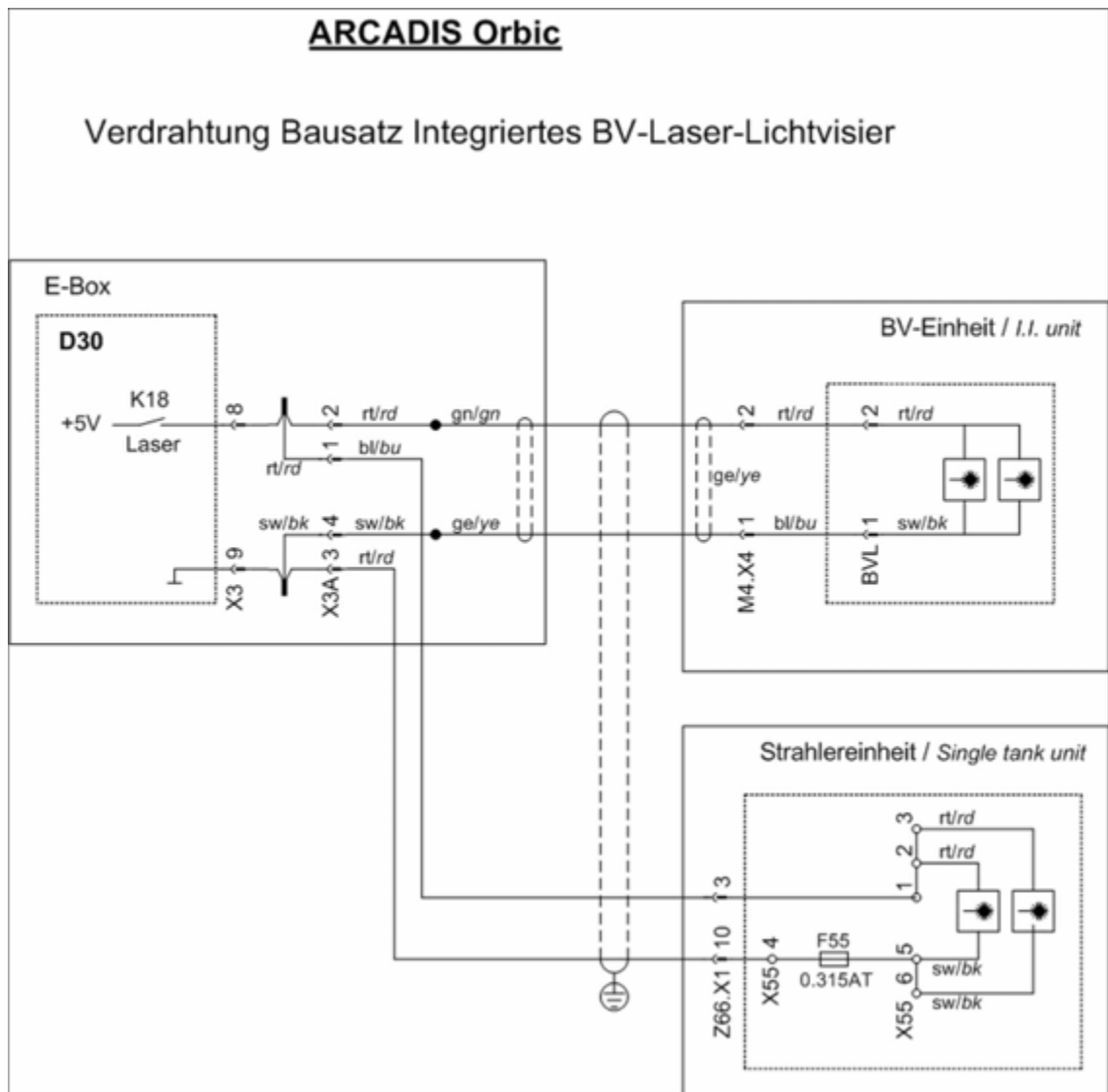


Fig. 36: ARCADIS Orbic, integrated laser light localizer circuit diagram

Not applicable, since new issue.

